

THE ENTOMOLOGY OF THE "ORBIS PICTUS" OF  
JOHN AMOS COMENIUS TOGETHER WITH  
NOTES ON SEVERAL EARLY, AMERICAN,  
ENTOMOLOGICAL JUVENILES

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It is doubtful if many entomologists are familiar with the elementary entomology found in the "Orbis Pictus," the first children's picture book, written by Comenius, the eminent educator of the seventeenth century, and published in 1657. For a hundred years and more, this was a popular text-book in Europe and mothers instructed their children from its text and pictures. The first edition was published at Nuremberg, and a little later (1658) it was translated into English by Charles Hoole. In 1812 it was republished in America.

The author had very definite aims in mind when he wrote his book. He wanted to please the children with the pictures so that they would be happy to go to school. He wanted to arouse their attention and to take "especially flickering wits and prepare them for deeper studies." In his preface, he dwells at some length on how his book should be used in schools and it is evident from his remarks and advice that his practices contained the beginnings of systems later connected with the names of Pestalozzi and Stow.

The scope of the book may be determined by reading the title page of the 1728 London edition that accompanies these notes. The chief things of the world include animals, plants, minerals, fishes, the heavens, air, water, etc., and the employments of men cover hunting, fishing, cooking, merchandising, the tormenting of malefactors, fencing, and so many more that Comenius' "Orbis Sensualium Pictus" is indeed "a world of things obvious to the senses drawn in pictures."

JOH. AMOS COMENII  
Orbis Sensualium Pictus:

HOC EST

Omnium principalium in Mundo  
Rerum, & in Vita Actionum,

PICTURA & NOMENCLATURA.

JOH. AMOS COMENIUS'S  
VISIBLE WORLD:

OR, A

Nomenclature, and Pictures

OF ALL THE

CHIEF THINGS that are in the WORLD, and  
of MENS EMPLOYMENTS therein;

In above 150 COPPER CUTS.

WRITTEN

By the Author in Latin and High Dutch, being  
one of his last ESSAYS; and the most suitable to Chil-  
drens Capacity of any he hath hitherto made.

Translated into English

By CHARLES HOOLE, M. A.

For the Use of Young Latin Scholars.

The ELEVENTH EDITION Corrected, and the English made to  
answer Word for Word to the Latin.

*Nihil est in intellectu, quod non prius fuit in sensu. Arist.*

London; Printed for, and sold by *John and Benj.*  
*Sprint*, at the *Bell in Little Britain*, 1728.

Reproduction of title page of the 1728 London edition  
of the "Orbis Pictus."

Two chapters or parts are devoted to entomology—such as it is—XXV, to “Flying Vermin” and XXXII to “Crawling Vermin.” These parts are reproduced as follows. The numbers in the text refer to the various insects in the illustrations.

## Flying Vermin

## XXV

## Insecta volantia



The *Bee*, 1. maketh honey which the *Drone*, 2 devour-eth. The *Wasp*, 3. and the *Hornet*, 4. molest with a sting; and the *Gad-Bee* (or *Breese*), 5. especially *Cattel*; but the *Fly*, 6. and the *Gnat*, 7. us.

The *Cricket*, 8. singeth

The *Butterfly*, 9. is a winged *Caterpillar*.

The *Beetle*, 10. covereth her wings with *Cases*.

The *Glow-worm*, 11. shineth by night.

*Apis*, 1. facit mel quod *Fucus*, 2. depascit  
*Vespa*, 3.  
& *Crabro*, 4.  
infestant oculo; & *Oestrum* (*Asilus*). 5.  
imprimis *pecus*. autum *Musca*, 6.  
& *Culex*, 7. nos.

*Gryllus*, 8. cantillat.

*Papilio*, 9. est alata *Eruca*.

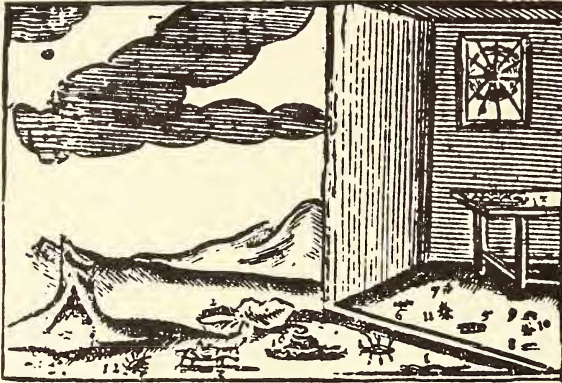
*Scarabæus*, 10. tegit alas *vaginis*.

*Cicindela* Lampyris, 11. nitet noctu.

## Crawling-Vermin

## XXXII

## Insecta repentia



Worms gnaw things  
 The *Earth-worm*, 1.  
 the Earth.  
 The *Caterpillar*, 2.  
 the Plant.  
 The *Grasshopper*, 3.  
 the Fruits.  
 The *Mite*, 4. the Corn.  
 The *Timber-worm*, 5.  
 Wood  
 The *Moth*, 6. a garment  
 The *Book-worm*, 7.  
 a Book.  
*Maggots*, 8.  
 Flesh and Cheese.  
*Hand-worms*, the Hair  
 The skipping *Flea*, 9.  
 the *Lowse*, 10.  
 and the stinking  
*Wall-louse*, 11. bite us  
 The *Tike*, 12.  
 is a blood sucker.  
 The *Silk-worm*, 13.  
 maketh silk.  
 The *Pismire*, 14.  
 is painful.  
 The *Spider*, 14.  
 weaveth a Cobweb,  
 net for flies.  
 The *Snail*, 16.  
 carrieth about her Snail horn.

*Vermes*, rodunt res.  
*Lumbricus*, 1.  
 terram.  
*Eruca*, 2.  
 plantam.  
*Cicada*, 3.  
 Fruges.  
*Circulio*, 4. Frumenta.  
*Teredo* (cossis), 5.  
 Ligna.  
*Tinea*, 6. vestem.  
*Blatta*, 7.  
 Librum.  
*Termites*, 8  
 carnem & caseum.  
*Acari*, Capillum.  
*Saltans Pulex*, 9.  
*Pediculus*, 10.  
 fœtans *Cimex*, 11.  
 mordent nos.  
*Ricinus*, 12.  
 sanguisus est.  
*Bombyx*, 13.  
 facis sericum.  
*Formica*, 14.  
 est laboriosa.  
*Aranea*, 15.  
 textit Araneum,  
 retia muscis.  
*Cochlea*, 16.  
 circumfert testam.

These two extracts will furnish one with a good idea of the plan of the entire work, although in justice it should be stated that the pictures of the insects are worse than those of any other objects in the book. I am sure that the illustrations of the "skipping flea," the "lowse" and other "crawling-vermin" did not "entice witty children" to them, nor did they "serve to stir up the attention."

Regardless of the lack of technical skill of the artist, if we except the entomological drawings which are meaningless, the illustrations are quaint and entertaining and no doubt amused and instructed the children.

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Among the numerous titles which circulated in the American nursery of long ago, we find certain ones on natural history. Many such books appeared after Goldsmith's "Animated Nature" had paved the way and made nature stories popular. In fact Goldsmith is supposed to have written, at the request of Newbery, such books as the anonymous "Jaeky Dandy's Delight; or the History of Birds and Beasts in Verse and Prose" and "Tommy Trip's History of Beasts and Birds."

Gradually the number of natural history books increased; many were reprints of English accounts, and the publishers in America showed little or no originality. The same texts and illustrations in some instances were used over and over, the only changes being in the title pages and imprints. It may be of interest to mention some of the titles of these nature books, such as the "Children's History of Birds and Beasts" from the Sandbornton Press (1836); the "Natural History of Animals," published by Boyd and White, Concord, N. H. (1839), and by S. H. Colesworthy, of Portland, Me.; "Trip's History of Beasts; being a trifle for a good boy" printed by E. & E. Hosford, Albany, N. Y. (1818); "A History of Birds for the use of children," published by Rufus Merrill, Concord, N. H. (1843); "The History of Animals," published by J. Babcock and Son, New Haven, Conn. (1824), these being toy-books of from 8 to 32 pages and about  $2\frac{1}{4}'' \times 3\frac{1}{2}''$  in size. Then there were the more ambitious ones such as "The Child's Book of Nature," published by Carter, Andrews, & Company, of Lancaster, Pa., with its colored plates;



**A B C D E F G H I J K L M  
N O P Q R S T U  
V W X Y Z.**

~~~~~  
**a b c d e f g h i j k l m n o p  
q r s t u v w x y z.**

~~~~~  
**A B C D E F G H I J K L  
M N O P Q R S T U  
V W X Y Z.**

~~~~~  
**a b c d e f g h i j k l m n o p  
q r s t u v w x y z.**

~~~~~  
**A A A A A — f f f f f.**

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**1 2 3 4 5 6 7 8 9 0.**

Inside of front cover and title page of the 1821 edition of  
"The History of Insects."

THE

*History of Insects.*



And God made every thing that creepeth upon the earth. Gen. i. 25

NEW-YORK.

PUBLISHED BY SAMUEL WOOD & SONS,  
NO. 261, PEARL-STREET;  
And Samuel S. Wood & Co. No. 212, Market st.  
Baltimore.

~~~~~  
1821.

the "Book of Birds," published by R. Merrill, Concord, N. H. (1851), running to 24 pages and of almost pamphlet size, 4 x 6 inches, and "A Concise Natural History of Birds," of 36 pages (3½" x 5¼"), published in Boston, Mass., by Thomas B. Wait and Co., and Charles Williams about 1817. Nor should Bewick's "Quarupeds" be forgotten.

As a rule the natural history books were generously illustrated, sometimes with engravings verging on the grotesque, but more often just dowdy. The smaller ones frequently carried a page devoted to the alphabet, and many were encased in colored wrappers, blue, yellow and green seeming to predominate.

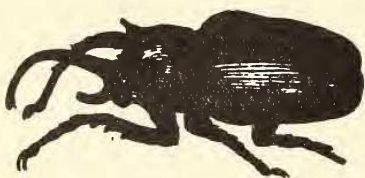
One branch of natural history, however, was somewhat neglected. This was entomology. Toy-books about insects were, apparently, not numerous, probably because of the specialized nature of the subject and probably because of the little public

interest in that particular branch of natural history. Nevertheless a few toy-books on insects managed to circulate along with their more popular neighbors, those on birds and mammals. In 1816 Samuel Wood & Sons printed and sold at their juvenile book store, 357 Pearl Street, New York, a toy-book of 28 pages (4" x 2½") entitled "The History of Insects." After a quotation from Barbauld and a short introduction designed to impress one with the wonders of insects, fourteen examples are treated graphically and textually. Included therein are such common insects as the grasshopper, the cricket, the flea, the louse, the honey-bee, the dragon-fly and ants, and such uncommon ones, at least in this climate, as the elephant beetle, and the scorpion, which latter creature, of course, is not an insect. In the accounts, there is an attempt to supply facts of an interesting kind, but from an entomological view-point the statements are frightfully elementary and not always correct. However, this perhaps did not detract from the pleasure which the youthful readers obtained from handling the tiny books, and reading the accounts of something which perhaps they had already noted in the fields. The accounts are didactic in the extreme and have none of the unconscious humor which is so apparent in the text of some of our early toy-books.

The number of editions of the Samuel Wood & Sons' "History of Insects" is not known, nor is it known if the "History" appeared before 1816. However, in 1821 Samuel Wood & Sons, of 261 Pearl Street, and Samuel S. Wood & Co., No. 212 Market Street, Baltimore, published a "History of Insects" which, except for the changed imprint on the title page and the addition of covers (including various alphabets on page 2 of the cover), is identical with the 1816 edition. Perhaps the 1816 edition at one time had covers, in which event the two editions differ but slightly.

About 1860 Bailey & Noyes, of Portland, Maine, published "The History of Insects" as one of a series of twelve titles. This is a little sixteen-page, paper-covered book measuring 3½ x 2½ inches. It contains fewer accounts than the Wood "History of Insects," but the text of these is the same as the text in the Wood

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**ELEPHANT-BEETLE**

The elephant-beetle is the largest of this kind hitherto known, and is found in South America, particularly in Guiana, about the rivers Surinam, and Oroonoko. It is of a black colour, and the whole body is covered with a shell, full as thick and as strong as that of a small crab. There is one preserved in the museum that measures more than six inches.

Pages 6 and 7 of the 1821 edition of "The History of Insects."

editions. The illustrations are different and much weaker than the Wood illustrations.

The specimen pages of these nursery books on insects, shown herewith, illustrate the character of the pictures and the entomological content of the text. They are both crude and elementary, and sometimes misleading, but perhaps they served a purpose in amusing and instructing the children and in stimulating their interest in natural history. As for their mistakes, most of us carry through life an amazing amount of misinformation on various topics, picked up through diverse channels and from various sources.

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**GRASSHOPPER.**

Grasshoppers are too common to need description, as they abound almost wherever there is green grass. One summer only is their period of life; they are hatched in the spring, and die in the fall; previous to which, they deposite their eggs in the earth, which the genial warmth of the next season brings to life. They are food for many of the feathered race.